

CLIPPEDIMAGE= JP360077429A

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TITLE: DRY ETCHING METHOD

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INVENTOR-INFORMATION:

NAME

SEGAMI, MAKOTO

TERASE, KUNIHIKO

IIDA, SHINYA

KOMATSU, HIDEO

ASSIGNEE-INFORMATION:

NAME

COUNTRY

ASAHI GLASS CO LTD

N/A

KOKUSAI ELECTRIC CO LTD

N/A

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ABSTRACT:

PURPOSE: To prevent or remove the etching residue or produced polysilicon and
to suppress the etching of a semiconductor material by
etching the
semiconductor material with gas which contains at least C, F,
O and compounds
simultaneously contained as indispensable components.

CONSTITUTION: Perfluoroepoxides such as
CF<SB>2</SB>CF<SB>2</SB>O or perfluoro
cyclic ethers such as CF<SB>2</SB>CF<SB>2</SB>CH<SB>2</SB> is
suitable gas, and
a mixture of two or more gases containing mainly solely any
of them or

hexafluoropropylene oxide is employed. When trifluoromethane is mixed at the etching time of SiO₂, PSG for these compounds, the formation of polymer can be particularly suppressed while holding the selectivity of the primary Si and a photoresist, and when Cl₂ is mixed at the etching time of the polysilicon or metallic film, the etching of high selectivity can be performed at a high speed, and when suitable amount is mixed with hexafluoropropylene oxide, it is similarly effective.

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